

**IN THE CLAIMS:**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (currently amended) A moving image processing device, comprising:

an information collecting ~~means-for-unit~~ collecting first information about a motion vector for each frame from moving image data which is compressed with inter-frame prediction encoding, and for also collecting second information about a correlation with a preceding/succeeding frame without decoding an image for each frame;

a evaluation function calculating ~~means-for-unit~~ calculating a value of an evaluation function which includes the first and the second information collected by said information collecting means as parameters only for a frame within a frame group which satisfies a condition that a forward prediction motion vector and a backward prediction motion vector in consecutive frames are small; and

a scene change determining ~~means-for-unit~~ determining a scene change by making a comparison between the value of the evaluation function, which is calculated by said evaluation function calculating ~~means~~unit, and a threshold value.

2. (currently amended) The moving image processing device according to claim 1, wherein:

said information collecting ~~means-unit~~ collects a scene change interval; and

said evaluation function calculating ~~means-unit~~ calculates the value of the evaluation function which includes the first and the second information, and the scene change interval as parameters.

3. (currently amended) The moving image processing device according to claim 2, further comprising

a scene change information storing ~~means-for-unit~~ storing the first and the second information, and the scene change interval as scene change information.

4. (currently amended) The moving image processing device according to claim 3, wherein

said evaluation function calculating ~~means-unit~~ calculates the value of the evaluation function by using the scene change information read from said scene change information storing ~~means~~unit; and

said scene change determining ~~means-unit~~ determines a scene change by making a comparison between the calculated value of the evaluation function and a threshold value.

5. (currently amended) The moving image processing device according to claim 1, wherein said information collecting ~~means-unit~~ collects the first information about a motion vector for each frame from first header information, which is added in units of frames of the compressed moving image data, and second header information, which is added in units of constituent elements of the frame, without decoding an image of the frame.

6. (currently amended) The moving image processing device according to claim 1, wherein said information collecting ~~means-unit~~ collects the second information about a correlation with a frame preceding/succeeding each frame from first header information, which is added in units of frames of the compressed moving image data, and second header information, which is added in units of constituent elements of the frame, without decoding an image of the frame.

7. (original) The moving image processing device according to claim 1, wherein the evaluation function is a function into which parameters are linearly combined with coefficients that are respectively assigned to the parameters.

8. (currently amended) ~~A~~The moving image processing device according to claim 1, wherein, comprising:

information collecting means for collecting first information about a motion vector for each frame from moving image data which is compressed with inter-frame prediction encoding, and for also collecting second information about a correlation with a preceding/succeeding frame without decoding an image for each frame;

evaluation function calculating means for calculating a value of an evaluation function which includes the first and the second information collected by said information collecting means as parameters; and

scene change determining means for determining a scene change by making a comparison between the value of the evaluation function, which is calculated by said evaluation function calculating means, and a threshold value; and

said information collecting means collects the number of bidirectionally predicted regions having both a forward prediction motion vector and a backward prediction motion vector for each frame, and outputs the first and the second information to said evaluation function calculating means as parameters only for a frame within a frame group which satisfies a condition that the numbers of bidirectionally predicted regions in consecutive frames are small.

9. (currently amended) The moving image processing device according to claim 1, wherein said information collecting ~~means-unit~~ outputs the number of bidirectionally predicted regions having both a forward prediction motion vector and a backward prediction motion vector in each frame within a frame group to said evaluation function calculating ~~means-unit~~ as a parameter of the evaluation function.

10. (original) The moving image processing device according to claim 8, wherein said information collecting means collects an appearance interval of a frame that becomes a scene change within a frame group which satisfies a condition that the number of bidirectionally predicted regions in consecutive frames are small, and outputs the appearance interval of the frame to said evaluation function calculating means as a parameter of the evaluation function.

11. (original) The moving image processing device according to claim 10, further comprising:

scene change information storing means for storing, as scene change information, the first and the second information of a frame within a frame group which satisfies a condition that the number of bidirectionally predicted regions in consecutive frames are small, and the appearance interval of the frame which becomes a scene change.

12. (original) The moving image processing device according to claim 11, wherein:  
said evaluation function calculating means calculates the value of the evaluation function by using the scene change information read from said scene change information storing means;  
and

said scene change determining means determines a scene change by making a comparison between the calculated value of the evaluation function and a threshold value.

13. (original) The moving image processing device according to claim 1, wherein the first information is the number and magnitudes of motion vectors, whereas the second information is a square measure of a region having a low correlation with a preceding/succeeding frame.

14. (original) The moving image processing device according to claim 1, wherein the evaluation function is a function whose parameters are determined according to an appearance cycle of an intra-frame encoded frame or a forward predicted frame in the encoded moving image data.

15. (currently amended) A moving image processing method, comprising ~~the steps~~ of:

(a) ~~collecting~~ first information about a motion vector for each frame from moving image data which is compressed with inter-frame prediction encoding;

(b) ~~collecting~~ second information about a correlation with a preceding/succeeding frame without decoding an image of each frame;

(c) ~~calculating~~ a value of an evaluation function which includes the first and the second information as parameters only for a frame within a frame group which satisfies a condition that a forward prediction motion vector and a backward prediction motion vector in consecutive frames are small; and

(d) ~~determining~~ a scene change by making a comparison between the calculated value of the evaluation function and a threshold value.

16. (currently amended) The moving image processing method according to claim 15, further comprising ~~the step of~~:

collecting a scene change interval, and

wherein the evaluation function which includes the scene change interval as a parameter is calculated in the calculating~~step (c)~~.

17. (currently amended) The moving image processing method according to claim 15, wherein the first information about a motion vector for each frame is collected from first header information, which is added in units of frames of the compressed moving image data,

and second header information, which is added in units of constituent elements of the frame, without decoding an image of the frame in the collecting first information~~step (a)~~.

18. (currently amended) The moving image processing method according to claim 15, wherein the second information about a correlation with a frame preceding/succeeding each frame is collected from first header information, which is added in units of frames of the compressed moving image data, and second header information, which is added in units of constituent elements of the frame, without decoding an image of the frame in the collecting second information~~step (b)~~.

19. (original) ~~The moving image processing method according to claim 15, further comprising the step of, comprising:~~

collecting first information about a motion vector for each frame from moving image data which is compressed with inter-frame prediction encoding;

collecting second information about a correlation with a preceding/succeeding frame without decoding an image of each frame;

calculating a value of an evaluation function which includes the first and the second information as parameters;

determining a scene change by making a comparison between the calculated value of the evaluation function and a threshold value; and

(e)——collecting the number of bidirectionally predicted regions having both a forward prediction motion vector and a backward prediction motion vector, and

wherein the value of the evaluation function is calculated only for a frame within a frame group which satisfies a condition that the numbers of bidirectionally predicted regions in consecutive frames are small in the calculating~~step (e)~~.

20. (currently amended) The moving image processing method according to claim 19, wherein the evaluation function calculated in the calculating~~step (e)~~ includes, as a parameter, the number of bidirectionally predicted regions having both a forward prediction motion vector and a backward prediction motion vector in each frame within the frame group.

21. (currently amended) The moving image processing method according to claim 19, further comprising ~~the step of:~~

collecting an appearance interval of a frame that becomes a scene change within a frame group which satisfies a condition that the numbers of bidirectionally predicted regions in consecutive frames are small, and

wherein the evaluation function calculated in the calculating step (c) includes the appearance interval of the frame as a parameter.

22. (original) The moving image processing method according to claim 15, wherein the first information is the number and magnitudes of motion vectors, whereas the second information is a square measure of a region having a low correlation with a preceding/succeeding frame.

23. (currently amended) A computer-readable storage medium on which is recorded a program for causing a computer to execute a process, said process comprising ~~the steps of:~~

(a)——collecting first information about a motion vector for each frame from moving image data which is compressed with inter-frame prediction encoding;

(b)——collecting second information about a correlation with a preceding/succeeding frame without decoding an image for each frame;

(c)——calculating a value of an evaluation function which includes the first and the second information as parameters only for a frame within a frame group which satisfies a condition that a forward prediction motion vector and a backward prediction motion vector in consecutive frames are small; and

(d)——determining a scene change by making a comparison between the calculated value of the evaluation function and a threshold value.

24. (new) A moving image processing device, comprising:

information collecting means for collecting first information about a motion vector for each frame from moving image data which is compressed with inter-frame prediction encoding, and for collecting second information about a correlation with a preceding/succeeding frame without decoding an image for each frame;

evaluation function calculating means for calculating a value of an evaluation function which includes the first and the second information collected by said information collecting means as parameters only for a frame within a frame group which satisfies a condition that a forward prediction motion vector and a backward prediction motion vector in consecutive frames are small; and

scene change determining means for determining a scene change by making a comparison between the value of the evaluation function, which is calculated by said evaluation function calculating means, and a threshold value.